

The Impact of Religiosity on Acculturation Strategies and Psychological Distress

by

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A thesis submitted in partial fulfillment

of the requirements for the degree of

Master of Science

(Psychology)

in the University of Michigan-Dearborn

2016

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Dedication

I dedicate this thesis to my parents and my aunt and uncle. To my parents, Maaz and Imrana, for your prayers, patience, and love; for always supporting me in all my life endeavors and for providing me with the best education anyone could ask for. To my aunt and uncle, Jawad Anwar, Ayesha Hussaini, and the Michigan Sibs for your unconditional support and making me feel at home away from home.

Acknowledgements

I would like to express my deepest gratitude to my thesis advisor, Dr. Wrobel, for giving me the opportunity to pursue this project despite her very busy schedule. It is with her guidance and deep insight to the topic that has made this thesis possible. Furthermore, I would like to thank Dr. Hymes for always having an open door for me to seek help and for guiding me through the statistical processes. I'm indebted to both of you for all your support and guidance.

Also, I would like to thank the board of the Islamic Society of Central Jersey and the Muslim Community of Western Suburbs for supporting my thesis and allowing me to use your facilities to collect data. I would like to thank all the participants for taking the time out and completing the survey. I greatly appreciate all the support.

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Chapter 1

Introduction

The United States has been a land of immigrants from all over the world since its discovery. In more recent decades, there has been a boom in populations from Pakistan and Arab lands (Pew Research Poll, 2013). As a religious minority in American society, these two groups have come to encompass a large part of the immigrant population. Their continuous contact and adjustment of culture over the generations, with American society, has a great impact on their thoughts and behaviors. It is evident throughout the literature that this cultural adaptation directly effects mental health. More specifically, their acculturation style/strategy has been associated with psychological well-being. Individuals who successfully acculturate tend experience less distress, while individuals who have a difficult time adapting to a new culture exhibit more distress (Berry, 1997). However, the relationship is not that simple. Many studies have hinted that other variables like religion can influence this relationship, but few have directly accounted for it (e.g. Berry 1997; Amer & Hovey, 2005; Aprahamian, Kaplan, Windham, Sutter, & Vissar, 2011; Jadalla & Lee, 2012). Thus, a main moderator of the relationship between acculturation and psychological distress might be religion in these culturally diverse groups. By taking into account the religion of the population researchers can better determine if religion truly has a significant impact upon adaptation and psychological well-being.

The number of Muslim immigrants has been rapidly rising in the United States over the past decade. According to Pew Research Center, the Muslim population rose from 400,000 to 2.75 million between the years 2007 to 2011; largely due to immigration (Mohamed, 2016). Furthermore, a majority of these Muslim immigrants are from the Middle East and South Asia. As immigrants they bring with them their culture of origin. Over time, some individual's transition and adopt the American lifestyle, while others preserve their heritage and become more conservative. Likewise, their religious practices and beliefs tend to clash with the American culture, making it more difficult to adapt. In other words, individuals who successfully acculturate experience less distress, while individuals who have a difficult time adapting to a new culture exhibit greater distress. It is imperative to note that religion for these populations is a great part of their life and in turn affects the adaptation process. Thus, the purpose of this study is to investigate the role of religion, Islam, as a moderator on the relationship between acculturation strategies and psychological distress in Arab American and Pakistani immigrants and descendants living in the United States.

The study will compare Arab American and Pakistani populations because their identical religious beliefs and practices, but different cultural background will shed light on the influence religion has on their method of adapting to the new culture and mental health. The focus on Arab American and Pakistani population is to clarify the impact of religion without confounding it with a specific culture. Moreover, there is an adequate amount of literature on the Arab American population, however research on Pakistani immigrants in America is scarce. Although there is literature on the Arab American population in regards to acculturation and psychological well-being, which indicates

greater acculturation results in better psychological well-being, (Berry, 1997; Berry, 2005, Jadalla & Lee, 2012; Fassaert, Wit, Tuinebreijer, Knipscheer, Verhoeff, Bekman, & Dekker, 2011) religion is hardly discussed considering its impact on day to day life of this population. Thus, research findings are limited in exploring religion as a factor influencing psychological well-being and also limited in including other prominent groups with the same religion, such as Pakistani's. Previous literature refers to religion as an alternate explanation for individuals who are less acculturated and have lower psychological well-being and consistently compared Christians and Arab Americans (Amer & Hovey, 2005; Amer & Hovey, 2007; Jadalla & Lee, 2012; Aprahamian, Kaplan, Windham, Sutter, & Visser, 2011). Therefore, this investigation will aim to shed light on the Pakistani population in America as well. In summary, this research will specifically investigate Arab American and Pakistani immigrants' acculturation patterns and psychological well-being while testing religion as a moderating factor.

Implications

Considering the significant population size of Arab American and Pakistani immigrant populations in the United States, exploring the impact of religion on these minority groups can benefit therapeutic interventions for individuals that have integrated into the American culture or individuals that have high psychological distress due to integration or difficulties with acculturation. Muslims make up 1% (3.3 Million) of the United States population and their population is predicted to double in the next 10 years (Mohamed, 2016). Thus, there is a great need for public policy and programs catered towards their beliefs and practices that can empower them in modern society.

Furthermore, this rapid growth of the Muslim population has made it vital for therapists and researchers to develop clinical practices that takes into account the interexchange of religion and culture. Additionally, understanding the role of religion can also be crucial for individuals who greatly identify by it in order to shape mental health treatments that parallel their beliefs. Lastly, the current circumstances overseas and the political atmosphere in the United States makes it imperative to understand how Muslims fit into the American society and how these factors affects their mental health.

The literature review that follows evaluates empirical findings on acculturation, mental health and religion in Arab American and Pakistani immigrants. More specifically, it is broken down into three prominent sections. The first section will discuss Berry's Acculturation model, which will be used as a basis for evaluating acculturation strategies. The next section examines prominent literature on the main variables: acculturation, religion, and psychological well-being. The main focus of this section is to highlight what the current literature holds thus far on Muslim immigrant populations, the various gaps/limitations of those studies, and the implications that can be drawn from them. The last section of literature review briefly discusses the Pakistani population followed by some basics of Islam.

Chapter 2

Literature Review

Acculturation

The idea of acculturation is not new to the field of psychology. In fact, it has been studied for many years across many cultures. The definition of acculturation has been changing over time to best fit all the factors that delineate it. One of the earliest of its definitions explains it as a “phenomenon which results when groups of individuals having different cultures come into continuous firsthand-contact, with subsequent changes in the original culture patterns of either or both groups” (Redfield, Linton, & Herskovits, 1936). Thus, it is a change that can occur at a group level, but more likely in the non-dominant group. Theodore Graves narrows this idea further by highlighting the interplay of acculturation and one’s psychology, in essence, psychological acculturation, which is simply a psychological change in the individual (Graves, 1967). Interestingly, he also points out that the lack of involvement in the new culture can intensify one’s own misery (Graves, 1967). Thus, by taking both definitions into consideration, it depicts an adjustment that results from coming in contact with another dominant culture. Similarly, this change is evident at the group or individual level and can impact the individual’s psychology positively or negatively. Berry (1997) emphasizes that establishing this basis is critical in order to systematically examine the relationship between culture and psychology and how this varies individually. More specifically, changes at the individual

level may not be as evident at the group level. Thus, highlighting these changes will decipher the impact of acculturation to an individual's thoughts, emotions, and behavior.

When individuals come in contact with another culture they have to make adjustments and adapt to some degree for growth and survival. John Berry defines these adaptations through different acculturation styles and their impact on psychological well-being through his Acculturation Model. According to Berry's Acculturation Model, when an individual faces a conflict with the cultures they can resolve this in two ways: cultural maintenance or contact and participation (Berry, 1997). Cultural maintenance is the degree to which an individual values their cultural identity and its preservation. Contact and participation refers to the extent the individual immerses or avoids involvement with the dominant culture (Berry, 1997). The approach the individual makes when faced with a cultural conflict further defines the strategy of acculturation they adhere to.

There are four possible strategies an individual can adhere to: Assimilation, Separation, Integration and Marginalization. Firstly, assimilation is where the individual does not maintain their cultural identity and seeks to interact with the other culture. This style suggests that the individual prefers to value and maintain a relationship with the larger society over their own identity and characteristics. Conversely, separation is when the individual maintains their original culture and avoids the other culture. Thus, the individual values to maintain their identity and characteristics over a relationship with the larger society. Moreover, integration is the balance between these, where the individual maintains their own culture to some degree and participates in the other culture as well. Thus, they value both, their identity and the larger society. Finally, marginalization is when the individual maintains neither the original culture nor the other culture (Berry,

1973). These four acculturation strategies are integral in explaining adaption into a new culture and its effects on well-being.

The choice of acculturation strategy affects the individual's psychology and can result in positive or negative adaptations. For instance, integration is considered to be the most successful method of adaptation, while marginalization is the least (Berry, 1997). Integration entails the individual to be more flexible and accepting of both cultures, whereas marginalization strips the individual of belonging to any group or identity. Both represent polar ends of adaptation attitudes. On the other hand, assimilation and separation are in the middle, assimilation leans more towards the host culture, comprising more culture shedding. In contrast, separation prevents the individual from learning about the host culture and maintains their culture of origin. Regardless, they both adhere to a culture, may it be their culture of origin or of the host society. This allows them to still maintain some sort of identity. Nevertheless, an ideal level of adaptation, integration, is viewed as vital for an immigrant's growth and success in society because it allows for the maintenance and balance of both cultures. The greater the difference between the cultures, the more difficult the adaption process becomes. Some of these differences, such as religion, language, customs, and so on, may require greater cultural shedding and cultural learning. Similarly, this cultural conflict will result in negative intergroup attitudes and poorer adaptation (Berry, 1997).

The process of acculturation happens over time as a consequence of mutual accommodation resulting in cultural and psychological change in the individual and group. And this process continues for as long as two different groups are in contact (Berry, 2005). Pluralistic societies, such as those that are accepting and supportive of

diversity and new cultures, may allow for an easier acculturation process. The United States, being one of these pluralistic societies, has always been the land of immigrants. Berry (2005) highlights that pluralistic societies encourage integration over assimilation, marginalization, and separation and even provide social support, such as culturally sensitive health care or diverse school curricula. Nonetheless, even in pluralistic societies, individuals of different race or religion exhibit difficulties, for instance discrimination, rejection, and even hostility, leading to poorer outcomes (Berry, 2005). Thus, these experiences can lead to poor psychological health resulting in depression, anxiety, and stress. This is imperative for our investigation because pluralistic societies may not fully allow for integration to take place even when the society is said to be open to it, and the immigrant may believe they have integrated, yet still experience difficulties with language, discrimination, rejection, and so on. Furthermore, immigrant families that have been living in a pluralistic society for many generations yet experience discrimination or racism may also feel lost, or experience an identity crisis, further hindering their psychological well-being.

A significant part of this equation is what Berry refers to as “cultural distances” (1997). Cultural distances are considered to be moderating factors between acculturation and an individual’s psychology. Furthermore, it consists of one specific classification important for the purpose of this investigation, religion. Some research has mentioned that religion can moderate this relationship (Abu-Rayya & Abu Rayya, 2009; Aprahamian, Kaplan, Windham, Sutter, & Visser, 2011) . However, there is limited research that directly investigates the specific relationship. Religion is an antecedent to adopting an acculturation strategy. It can be valuable to the individual and act as a

protective factor, or it can become a struggle and act as a risk factor. Thus, the degree to which an individual values religion will precede their acculturation strategy and in turn influence psychological well-being. It is important to take these factors into consideration, especially for those immigrants that have been living in the United States for many generations. Many immigrants over the years have come to consider themselves to be socially integrated as previously mentioned, however, their religion may not be the dominant one, restricting full integration. Furthermore, religion may actually forbid many of the practices of the dominant culture, leading to further cultural conflict and creating a dilemma for the individual. Thus, it is important to contemplate if full integration is even possible. Nevertheless, the space between these cultural distances can depict the impact it has on an individual's acculturation strategy and their psychological health.

Religion and Acculturation

Religion is a significant part of life for Muslims and in many instances, religion and culture come in conflict. For example, in the United States, the culture accepts drinking at social gatherings or celebrations, but for Muslims, in culture and in religion, it is prohibited and looked down upon. The choice an individual makes in such an instance has an impact on their psychology. This conflict can create significant psychological distress. Many researchers have reflected upon this relationship. A fairly recent study done by Amer and Hovey looked at the relationship between acculturation and mental health in Muslims and Christians (2007). It was evident that intrinsic religiosity was related to better family functioning and lower depression in Arab Muslims. They further suggest this by highlighting how Islamic principles and traditional Arab family values may reflect this outcome because it brings the family together and acts as a protecting

factor when faced with conflict (Amer & Hovey, 2007). In an earlier exploratory pilot study Amer and Hovey investigated acculturation strategy and religiosity in Arab American Muslims. It was evident that Muslims showed higher levels of intrinsic religiosity and a singular acculturation experience (Amer & Hovey, 2005). They noted that a separation strategy was not related to increased stress or mental health problems and integration seemed to show a relationship with acculturative stress. Furthermore, intrinsic religiosity correlated with less depression (Amer & Hovey, 2005). These findings allude to the role religion can have in cultivating psychological well-being, regardless of their acculturation strategy.

Other studies have investigated other variables that could play a role in predicting mental health in Arab Americans. Aprahamian, Kaplan, Windham, Sutter, and Visser (2011) tried to account for individual variables that could explain the relationship between acculturation and mental health. They found that the relationship was not significant between the two variables due to factors, such as religion, age, length of immigration, and discrimination (Aprahamian et al. 2011). Drawing any conclusion about Muslims from this study is limited because it included both Christians and Muslims. However, it was evident that adding religion to the equation was predictive of mental health (Aprahamian et al. 2011). Furthermore, reported discrimination was correlated with higher depression and lower acculturation (Fargallah, Schumm, & Webb, 1997). This finding supports the subgroup of moderating factors in Berry's Acculturation model, suggesting that acculturation will lead to better mental health. However, it is evident that the process is more complex than previously understood. Thus, this further drives an investigation to look specifically at religion as a moderator between

acculturation and mental health and examine the extent of its influence. Furthermore, many conclusions drawn from recent findings are limited due to their proximity to the events of September 11 (Amer & Hovey, 2005).

A fairly recent investigation provides evidence of religion indirectly playing a role in the relationship between acculturation and mental health. Jadalla and Lee (2012) revealed that assimilation into the American culture showed significant association with better mental health (Jadalla & Lee, 2012). Even though their primary study did not involve religiosity, they did comment on it for their model for physical health. They interestingly noted that religion was one of the variables that significantly predicted the likelihood of using alcohol, however being Muslim decreased the use of alcohol by 98%. Furthermore, an attraction to the American culture more than doubled alcohol consumption (Jadalla & Lee, 2012). Even though the study does not directly address mental health, it is incidentally suggestive of the interplay of acculturation and religion. To illustrate, aspects of the dominant culture may attract the individual towards a certain culturally accepted behavior, (drinking alcohol) whereas religion prohibits its use and in turn overpowers following that cultural norm. Regardless, the acculturation style in this case predicted the outcome, thus pushing to ask the question, to what extent religion impacts one's acculturative style?

Studies of acculturation and psychological distress in Muslims have also been examined in other countries. A study conducted in the Netherlands on first generation Muslim migrants suggested that Moroccans displayed less psychological distress due to traditionalism (separation), but this relationship was not evident in the Turkish population, even when they maintained their culture of origin and Turkish identity

(Fassaert, Wit, Tuinebreijer, Knipscheer, Verhoeff, Bekman, & Dekker, 2011). Even though religion was not a part of this investigation, it could possibly explain the results of the Turkish population. For instance, the Moroccan population may have higher religiosity, which could buffer the negative effects of separation resulting in less psychological distress, whereas the Turkish may not have the same level of religiosity. Nonetheless, it is important to note that much of the psychological distress was related to experiences of social defeat (Fassaert et al., 2011). Thus, immigrants who are unable to adapt to societal demands, such as learn their language (Fassaert et al. 2011,) experience greater distress; but interestingly, separation from the dominant culture and maintenance of original culture, values, and beliefs also resulted in less distress. Can religiosity possibly explain this variance? Possibly, considering both the groups in this study were of the same religion, yet demonstrated different outcomes.

Similarly, Abu-Rayya and Abu Rayya (2009) suggest religious identity plays a central role between psychological well-being and acculturation. Positive relationships were evident between religious identity and Palestinian ethnic identity and between Palestinian ethnic identity and psychological well-being. More specifically those higher in both were higher in positive affect, self-esteem, and social relations and had lower levels of negative affect. Furthermore, they even found a positive relationship between a religious Islamic identity and psychological well-being (Abu-Rayya & Abu Rayya, 2009). The relationships between these variables have multiple implications: First, the relationship between religious identity and well-being supports the idea that ethnic identity is not the only important variable. The importance of religious identity for psychological well-being could exceed the importance of ethnic identity, and ethnic and

religious identity is crucial for psychological well-being for minority groups (Abu-Rayya & Abu-Rayya, 2009). This study is groundbreaking, as it is one of the very few that considers the relationship of religion, identity, and psychological well-being altogether. However, the study is limited in generalizability, due to its sample group and the potential impact of social and political aspects during the time period, which are unique to the Palestinian circumstances. Although these conclusions cannot necessarily be applied to the Muslim population under investigation in the United States, due to political, social, and cultural differences, examining this same concept to Arab American and Pakistanis could reveal a great deal about psychological well-being in Muslim immigrants.

There is a dearth of literature on the Muslim population in the Western world. The majority of knowledge on the topic we gain from European investigations. Another study that investigated on a sample of Turkish second generation Muslims (youth) in Europe, exhibited a maintenance of the religion of their heritage culture which was independent of acculturation (Gungor, Fleischmann, Phalet, & Maliepaard, 2013). It is important to note that much of these values, beliefs, and traditions are passed down from generation to generation, from parent to child. Furthermore, Turkish Muslims in Germany depicted an inverse relationship between integration and religiosity. However, Turkish Muslims in Belgium, the Netherlands, and Sweden did not observe this relationship, rather they were socially integrated despite their level of religiosity (Gungor et al., 2013). As contradictory as this may seem, it actually suggests that the nature of a society such as Germany that is more open to multiculturalism in comparison to the other three European countries, may be the reason for this outcome.

Pakistanis and Acculturation

Despite the large number of Pakistani immigrants in the West, they are an understudied and neglected minority (Jibeen & Khalid, 2010). For Pakistani immigrants in Canada, acculturative stress was a significant risk factor for psychological well-being and predictive of negative mental health symptoms (Jibeen & Khalid, 2010). This is one of the very few studies that looked at Pakistani population. Still, it discusses aspects of acculturative stress and not acculturation strategy, which is the focus of our study.

Despite this, it is evident that acculturative stress occurs when the individual struggles to adapt to the dominant culture. In that sense, it may be inferring, for the purposes of our study, that individuals who are not able to acculturate may show similar outcomes. For instance, Pakistani's who have higher acculturative stress may opt for a marginalized or a separated strategy. Additionally, both these strategies are related to some negative outcomes. Therefore, both factors, high acculturative stress and less acculturation may lead to greater negative psychological outcomes. Again religion was not considered as a factor in this study. But religion could explain how the Pakistani population and even the Arab American population for that matter, are able to flourish despite greater acculturative stress or acculturation strategy.

Pakistani immigrants greatly identify with religion and their family. Malik (1989) describes that family, profession, and ethnicity are key factors on acculturation. He is actually one of the few who made an effort to decipher the Pakistani population in the United States. He further describes "Islam plays a very vital role in the individual, national, and international life of a Pakistani...It is a complete code of life" (Malik, 1989, p. 27). Furthermore, according to Malik, (1989) the majority of Pakistanis in the states

are students, families of those students, and skilled workers, such as doctors, teachers, engineers, or lawyers who found jobs here. However, it is important to note that this study was conducted in the late 80's; since then this grouping has greatly broadened and many families have settled down here. Regardless, in pursuing these professions demands a level of acculturation to the society. In addition, it is evident that the longer Pakistanis are in the United States, the more natural the American lifestyle becomes for them. On top of that, religion is not as globally important, but rather a personal matter of the individual (Malik, 1989). "Acculturation results into more secular way of living" (Malik, 1989, p. 130). On the other hand, some Pakistanis turn to religion for security and "psychological solace in the alien culture" (Malik, 1989, p. 130). From this it is understandable that Pakistanis who immerse themselves in the American culture adopt a secular view, while others become more conservative. Thus, acculturation and religiosity can be predictive of each other and their psychological outcomes, but there may be varying strategies within the same group.

Islam and Psychology of Islam

In order to understand how religion impacts Arab American and Pakistanis, it is important to briefly explain Islamic beliefs and practices. According to the website whyislam.org, Islam means submission. It is the religion of the Muslim Ummah (community). Muslims follow the teachings of the Quran (holy book) and the Sunnah (actions of Prophet Muhammed) as their guide in life. All believers of the faith are created only for the worship of Allah (God) to be submitted in to heaven in the afterlife. According to Muslim beliefs, Allah is the creator and sustainer of everything in the world.

Furthermore, Islam delineates all aspects of the believer's life from birth to death. There are six articles of faith in Islam. The first one is the belief in the oneness of Allah, meaning there is only one God and he is the only one worthy of worship. The Quran dictates, "How can you worship things you carve with your own hands, when it is God who has created you and all your handiwork?" (Quran 37: 95-96). Furthermore, Allah sent prophets to show mankind its purpose. Some of these Prophets include, Adam, Moses, Jesus, Noah, Mohammed, and thousands of others. Prophet Muhammad is believed to be the last prophet sent by God. Muslims also believe in the holy books, including the Torah, Psalms, Gospel and Quran. However, it is important to note that Muslims only abide by the Quran because it is the only one that was not changed over time, while the others were lost and changed to the point that they are thought to have lost their original message.

Angels are another core belief of Islam. Angels are believed to be real beings that we are unable to see, yet whom will die as well. They too are believed to submit to Allah and follow his commands. There is no such thing as a fallen angel or the belief in becoming an angel after death (whyislam.org). Belief in the day of Judgement is also a core belief in Islam. Eternal life is what comes after death. Qadr or Destiny/Free-will is the last core belief of Islam. It is believed that mankind has the freedom to choose, but Allah has the knowledge and control over the destiny. The level of compliance to these beliefs are reflected in the religiosity scale that will be used in our investigation.

Furthermore, the five pillars including: Shahada, Salat, Siyam, Zakat, and Hajj are the mandatory basic practices of Islam. The Shahada is the belief and adherence to the statement: "There is no god but Allah, and Prophet Mohammad is the last and final

messenger of Allah.” Salat is the mandatory prayer done five times throughout the day. Siyam, are the mandatory fasting in the month of Ramadan, where it is forbidden to eat or drink from sunrise to sunset. Its purpose is to purify the soul and come closer to Allah. Zakat, is a mandatory annual payment or alms to the needy of 2.5% of any property of the individual. Hajj is the pilgrimage to Makkah that every believer must make at least once in their life, if they can afford it. All these factors are the very basics of what constitutes Islam, it is what everything else is built off of. For instance, many of Islamic manners and practices are from the Prophet Muhammed’s life and teachings of the Quran. These include, respect towards one’s parents, caring for their neighbor, seeking knowledge, and having mercy, humility, and generosity, to name a few. The Quran and the teachings of the Prophet are considered the key to living a complete Islamic life. This is a just a brief overview of the very basic Islamic beliefs. The level of compliance to these practices are also measured in the religiosity scale.

An empirical review of the psychology of Islam conducted by Abu Raiya and Pargament, (2011) point out important factors to consider for the Muslim population and their relationship with religion. It was evident in their review that Islam had a positive impact on Muslims lives as it tended to bring comfort, identity, purpose, and community. Furthermore, intrinsic religiosity and positive religious coping style were associated with greater well-being and inversely associated with anxiety, depression, anger, and physical health (Abu Raiya & Pargament, 2011). From this finding it is plausible to say that greater religiosity is a protective factor for psychological distress. Conversely, other aspects of religiosity, such as negative religious coping, extrinsic religiosity, punishing Allah reappraisal, may result in greater psychological distress (Abu Raiya & Pargament,

2011). The researchers, however point out these conclusions are limited, thus, further research will allow us to get a better understanding of the impact of Islam on mental health.

The Present Research:

While there are some existing works addressing the interplay between acculturation strategies, religiosity, and well-being, the findings are mixed and unanticipated for a majority of them. The one thing that is evident throughout the literature is that religion does seem to play an important role in acculturation styles and psychological well-being. Still the literature is focused on Arab American Muslims in comparison to Christians or European Muslim populations, thus limiting any conclusions about the impact of religion itself. However, from the literature we do gain an understanding that religiosity is associated with positive psychological well-being, while acculturation is also associated with positive psychological well-being. However, there is lack of research that aims to investigate all three variables simultaneously. Furthermore, considering the increase in population of Muslims, more specifically, Arab American and Pakistani's in the United States, it seems imperative to gain a better understanding of this population in regards to their acculturation style and mental health. Considering the nature of the American culture and inherit social demands that conflict with Islamic practices and beliefs, there is likely to be a complex relationship between the three variables. Thus, this research will build on previous findings on religion and psychological well-being and acculturation and psychological well-being and aim to systematically investigate the interaction between the three in Arab-American and Pakistani populations.

Hypothesis 1: Acculturation and Psychological Distress

The first goal is to examine the acculturation patterns in both groups with regards to their level of psychological distress. It is predicted that individuals who pursue an integration strategy of acculturation will have lower psychological distress ratings. Conversely, individuals who pursue a marginalization strategy will be high on psychological distress.

Hypothesis 2: Religion and Psychological Distress

The second goal is to examine the relationship of religion and psychological distress. A negative relationship between religiosity and psychological distress is predicted.

Hypothesis 3: Acculturation and Religion

It is predicted that acculturation and religion will have an inverse relationship as well. Individuals who pursue an integration or assimilation acculturation style will have lower religiosity, while individuals who pursue marginalization and separation will have greater religiosity.

Hypothesis 4: Religion, Acculturation, and Psychological Distress

The third goal is to examine the relationship of religion with acculturation strategy and psychological distress. It is predicted that individuals who have high religiosity will also be pursuing marginalization or separation (lower acculturation), thus resulting in lower psychological distress. On the other hand, individuals who are lower on religiosity will have higher integration or assimilation strategies (higher acculturation), thus resulting in higher psychological distress. Finally, it is predicted that the level of religiosity will moderate the degree to which acculturation impacts psychological distress.

Chapter 3

Methods

Participants

Table 1 displays the characteristics of the participants in the study. There were a total of 189 participants that took part in the study. They were all recruited from local mosques in New Jersey and Michigan. The mosques and their community members were prominently Sunni, Muslim in practice and belief. Of the 189 submitted surveys, 143 were fully completed and used for analysis. All participants were, fluent in English, ranging in age from 18 to 74, with a mean of 35 (SD = 11.9). Thirty-one percent (N=59) were males and 68% (N=129) were females. Eighty-nine percent (N = 163) of participants were non- U.S. born and 11% (N = 21) were U.S. born. The majority of the participants were from the middle class 43.4% (N = 82), 33.9% (N= 64) were upper middle class, 12.2% (N = 23) reported lower middle class, 7.4% (N = 14) upper class, 1.6% (N= 3) lower class, and 1.6% (N=3), declined to answer. As for level of education, the majority of the participants were college graduates 40.2% (N = 76), 37% (N = 70) reported to have completed graduate school or advanced degree, 17.5% (N = 33) reported some college or technical school, 2.1% (N = 4) reported high school graduate, and 3.2% (N = 6) reported other (Medical school, law school, pharmacy school). The majority of

the participants were of Pakistani backgrounds, 67.7% (N = 128), and 27% (N = 51) reported to be Arab American. 56.6% (N = 107) of the participants were from Michigan, while 40.2% (N = 76) were residents of New Jersey, and 3.2% (N = 6) were failed to report. Participants reported living in the U.S. for a period ranging from 1 year to 68 years, with a mean of 22.39 (SD=9.9).

Instruments

Each participant responded to three self-report measures assessing level of psychological distress, level of religiosity, and acculturation strategy. Self-report measures were conducted in person and online. In person data collection was done at the mosques. Online data collection was conducted using an online survey created with Qualtrics. The link to the survey was emailed through the mosque email database, posted on their Facebook page and website. Seventy-nine percent (N=150) of the questionnaires were submitted through Qualtrics and 21% (N=39) were completed in person at the mosque.

Depression, Anxiety, and Stress Scale (DASS; Lovibond & Lovibond, 1993). This scale was used to measure the current level of psychological distress in each participant. This scale was preferred because it allowed for the measurement of three specific attributes of mental health and that can be utilized for clinical purposes. The scale was the best fit to assess overall mental well-being and to the degree of severity of negative emotional states. It consists of 42 items, with three subscales: Depression, Anxiety, and Stress. Each subscale consisted of 14 items. Each item was rated on a 4-point severity/frequency scale, ranging from 0 to 3 (Lovibond & Lovibond, 1995). For each

item, the participant indicated the degree to which the statement applied to them in the past week. A score of a 0 indicated “never”, while a score of 3 indicated “almost always”. The scale has been well-validated with internal consistency including: Depression $\alpha = 0.93$; Anxiety $\alpha = 0.89$, Stress $\alpha = 0.90$. The Depression subscale included items that measured symptoms associated with dysphoria, devaluation of life, hopelessness, lack of interest, and anhedonia. The Anxiety subscale included items that are related to symptoms of autonomic arousal, skeletal/muscle effects, and fear. The Stress scale includes items that measure symptoms such as tension, irritability, and a tendency to overreact to stressful events (Antony, Bieling, Cox, Enns, & Swinson, 1998).

The DASS was utilized in two ways: one, it allowed for the measurement of overall psychological distress, which included all three subscales; two, it allowed for the measurement of severity in each subscale as well. Thus, we were able to utilize the scale to determine overall severity of distress and severity of experiences, pertaining to depression, anxiety, and stress. A high score indicated high levels of distress in the overall measure, and a high score in a subscale indicated a high level of symptoms/severity of that specific subscale. It is important to note that this instrument cannot and was not used for diagnostic purposes (Lovibond & Lovibond, 1995). Rather it allowed us to gauge the level of psychological disturbance in the individual and the nature of the disturbance.

Furthermore, for our purposes the DASS measure was recoded to a dichotomous¹ scale instead of its original continuous scale. Thus, we transformed the rating of each

1. This process resulted in greater variability of response by changing the nature of the response scores.

item. The rating of 0 stayed the same, meaning there was no discomfort. Ratings of 1, 2, 3 were all collapsed into a value of 1. Thus, any rating of 1, 2, or 3, was turned into a 1, meaning there was some level of discomfort.

Psychological Measure of Islamic Religiousness (PMIR; Abu-Raiya, Pargament, Mahoney, and Stein, 2008). This is a multidimensional, theoretically based measure of Islamic religiousness. It contains 60-items with two main subscales, Core Islamic Religious Dimensions Subscale and Non-specific Islamic Religious Dimensions Subscale (Putri & Amalia, 2014). The Core Islamic Religious Dimensions Subscale further has 5 subscales within it that assess constructs specific to Islam as a world religion (Abu-Raiya, Pargament, Mahoney, & Stein, 2008). They include: Islamic Beliefs Dimension (5 items; $\alpha = 0.97$) that assessed Islamic beliefs about the world such as belief in Allah and the afterlife. Participants rated each item on a 3-point scales, 0 (no), 1 (uncertain) and 2 (yes). Islamic Ethical Principles & Universality subscale (14 items; $\alpha = 0.96$) contains questions pertaining to behaviors and attitudes encouraged and discouraged in Islam. These include ethical principles questions covering aspects like honoring parents, helping relatives and neighbors, or refraining from alcohol or committing suicide. Universality assessed the degree to which the individual perceived themselves to belong to the larger Islamic nation, such as considering every Muslim in the world to be their brother and sister (Abu-Raiya, Pargament, Mahoney, and Stein, 2008).

The Islamic Religious Duty, Obligation & Exclusivism subscale (14 items; $\alpha = 0.77$) assessed three different aspects that made up the entire subscale. Religious duty assessed the degree of religious practice in daily life including questions, like how often they fasted or prayed, or number of times they went to the mosque. Each of these items

had different categories in the scale because of the practice; however, each item was rated on a 6-point scale. Obligation assessed the level of introjection such as “I fast in Ramadan because I would feel bad if I did not.” These were rated on a 4-point scale ranging from 1 (not to at all) to 4 (very true) (Abu-Raiya, Pargament, Mahoney, & Stein, 2008). Exclusivism included questions such as “Islam is the best way to worship Allah, and should never be compromised”; assessed on an eight-point scale ranging from -4 (strongly disagree) to 4 (strongly agree). Islamic Religious Struggle subscale (6 items; $\alpha = 0.90$) assessed the level of struggle or doubt in the faith. It included questions such as doubting the existence of Allah or the afterlife. Each item was rated on a 5-point scale, 0 (never) to 4 (very often). The higher the score the greater the religious struggle.

The Islamic Positive Religious Coping & Identification subscale (14 items; $\alpha = 0.88$) assessed the level of religious identification, rated on a 4-point scale, ranging from 1 (not true at all) to 4 (very true). It consisted of item such as “I pray because I enjoy it.” or “I read the Quran because I find it satisfying.” (Abu-Raiya, Pargament, Mahoney, and Stein, 2008). As for the positive religious coping, it assessed the degree to which the individual turned towards Allah during difficult times. For example, it included an item such as “When I face a problem in life, I look for a stronger connection with Allah.” (Abu-Raiya, Pargament, Mahoney, and Stein, 2008). The Punishing Allah Reappraisal subscale (3 items; $\alpha = 0.77$) assessed negative religious coping style during difficult times. It included an item such as “When I face a problem in life, I believe that I am being punished by Allah for bad actions I did.” (Abu-Raiya, Pargament, Mahoney, and Stein, 2008). Both positive and negative copying style scales were measured on a 4-point scale ranging from 1 (I do not do this at all) to 4 (I do this a lot). The Islamic Religious

Conversion subscale (6 items; $\alpha = 0.89$) assessed the level of which an individual increased in religiosity during their life. Only individuals who believe they went from being non-religious to religious answered this section. They were assessed on the level of increase in religiosity on a 5-point scale, ranging from 1 (strongly disagree) to 5 (strongly agree). The higher the individual rated on an item the higher their religiosity was rated (Abu-Raiya, Pargament, Mahoney, and Stein, 2008). Thus, the sum of the entire scale indicated the overall level of religiosity.

East Asian Acculturation Measure (EAAM: Barry, 2001). This measure was utilized to assess which acculturation strategy the participant inclined towards. The EAAM is a 29-item self-report inventory that measures the four dimensions of acculturation delineated by John Berry. The four sub-scales included, Assimilation (8 items; $\alpha = 0.77$), Separation (7 items; $\alpha = 0.76$), Integration (5 items; $\alpha = 0.74$), and Marginalization (9 items; $\alpha = 0.85$). Items were rated on a 7-point Likert-type scale (strongly disagree, disagree, disagree somewhat, neutral, agree somewhat, agree, agree strongly). The total score is derived by summing reverse and positive scored items (Barry, 2001). The higher the individual rated on a sub-scale depicted a greater adherence towards that acculturation strategy. For the purposes of our study, we reworded items to make them more appropriate to our population of interest. This original scale was designed to assess Asian population, however the word “Asian” was replaced with “Arab-American” or “Pakistani”. This scale was chosen because it is able to adequately assess the level of acculturation towards the Western culture. It is also applicable to the population under study in our investigation. Furthermore, it is one of the few instruments with adequate reliability and validity.

Demographic variables. The demographic variables put in table 1, included: gender, birth year, cultural background, level of education, socioeconomic status, number of years in the U.S. and their state of residence.

Statistical analysis was conducted using IBM SPSS Statistics 24. After obtaining descriptive statistics of the sample, a correlational analysis was conducted with our main variables as a pre-analysis to observe the associations among the independent and dependent variables. This was then followed by the main analysis, stepwise regression. Since the DASS scale used for our study consisted of multiple sub-scales, several stepwise regressions were conducted to examine them as well. These included stress, anxiety, and depression. A post-hoc analysis of additional stepwise regression followed without Marginalization as a predictor variable. This was done to account for possible confounding by the variable. Furthermore, Fisher's Z Transformation was tested upon various Pearson correlations due to a lack of variability and skewness in the dependent measure to investigate differences among the correlations.

Procedure

Mosques from New Jersey and Michigan were chosen and invited to take part in the study. Approval from the mosque's President and religious leaders was obtained before surveying individuals at the mosques. Two methods of data collection were utilized; in person and online. The in-person participation was conducted at the mosques for walk-in participants. Online surveying method was utilized via Qualtrics. An online link was posted on the mosque website, Facebook page, and emailed to the community members periodically over the course of three months. Online participants conducted the

survey at their convenience from their own location. Participants had the opportunity to enroll in a chance to win a \$25 Visa Gift in compensation for their participation. All of the surveying was administered in English. All participants were fluent in English and were able to understand the questions in each self-report measure.

Chapter 4

Results

Descriptive Statistics

Frequency and descriptive data for the demographics and the main variables were obtained as described above. Table 2 displays descriptive statistics for the main variables: religiosity, acculturation, and psychological distress (by cultural group). Interestingly, a t-test indicated that there was no significant difference between the groups. On average, Arab Americans had similar levels of Religiosity ($M = 172.55$, $SE = 5.18$) to Pakistani's ($M = 174.80$, $SE = 3.16$). The difference was not significant $t(168) = -0.37$, $p > .05$. Arab Americans had similar ratings on Assimilation ($M = 30.86$, $SE = 1.64$) to Pakistani's ($M = 32.87$, $SE = 0.83$). The difference was not significant $t(152) = -1.20$, $p > .05$. Arab Americans had similar ratings on Separation ($M = 24.31$, $SE = 1.33$) to Pakistani's ($M = 25.75$, $SE = 0.77$). The difference was not significant $t(152) = -0.96$, $p > .05$. Arab Americans had similar ratings on Integration ($M = 24.19$, $SE = 0.91$) to Pakistani's ($M = 25.81$, $SE = 0.49$). The difference was not significant $t(152) = -1.68$, $p > .05$. Arab Americans had similar ratings on Marginalization ($M = 22.50$, $SE = 1.73$) to Pakistani's ($M = 24.42$, $SE = 1.11$). The difference was not significant $t(152) = -0.92$, $p > .05$. Arab Americans had similar ratings on Overall Psychological Distress ($M = 9.94$, $SE = 1.75$) to Pakistani's ($M = 11.36$, $SE = 1.08$). The difference was not significant $t(140) = -0.67$, $p > .05$. Arab Americans had similar ratings on Stress ($M = 4.38$, $SE = 0.74$) to Pakistani's (M

= 5.15, $SE = 0.41$). The difference was not significant $t(140) = -0.75, p > .05$. Arab Americans had similar ratings on Anxiety ($M = 2.60, SE = 0.50$) to Pakistani's ($M = 2.78, SE = 0.34$). The difference was not significant $t(140) = -0.27, p > .05$. Arab Americans had similar ratings on Depression ($M = 2.91, SE = 0.67$) to Pakistani's ($M = 3.53, SE = 0.43$). The difference was not significant $t(140) = -0.74, p > .05$.

With regards to the religiosity (Abu-Raiya et. al., 2008), a composite score of overall religiosity was obtained by summing the scores of each PMIR subscale. The scores of each sub-scale were summed because each sub-scale measured different aspects of Islam beliefs and practices and the degree to which the participant followed and practiced it. The majority of the participants rated their level of religiosity as medium to high ($M = 173.53, SD = 35.61$).

Acculturation was separated by level of acculturation strategy based on the East Asian Acculturation Measure (Barry, 2001). Acculturation strategy was evaluated based on the sum of each sub-scale; Assimilation ($M = 32.51, SD = 9.26$), Separation ($M = 25.31, SD = 8.19$), Integration ($M = 25.26, SD = 5.37$), and Marginalization ($M = 24.15, SD = 11.63$). Each individual stood out on one particular strategy over the others, which was used to evaluate their level of acculturation.

The DASS measure was utilized in two ways, to obtain an overall measure of psychological distress by summing the totals for each sub-scale of depression, anxiety, and stress, and to obtain separate scores for each sub-scale. However, for our purposes the DASS measure was recoded to an index of dichotomous items instead of its original continuous scale created by Lovibond and Lovibond (1993). Thus, we transformed the rating of each item. This increased the variability in the responses. The rating of 0 stayed

the same meaning there was no discomfort. Ratings of 1, 2, 3 were all compiled into 1. Thus, any rating of 1, 2, or 3, was turned into a 1, meaning there was some level of discomfort. The transformed scale still held high reliability, $\alpha = 0.87$. This method was used to obtain the overall level of psychological distress ($M = 11.00$, $SD = 10.89$). The same method was also applied for each sub-scale, stress ($M = 4.88$, $SD = 4.28$), anxiety ($M = 2.74$, $SD = 3.35$), and depression ($M = 3.38$, $SD = 4.26$).

Correlational Analysis

Table 3 displays the correlation matrix for the study's main variables. Religiosity demonstrated a positive correlation with Separation, $r(158) = 0.23$, $p < 0.01$, and a negative correlation with Depression, $r(146) = -0.17$, $p < 0.05$. The Assimilation acculturation strategy scale was correlated with overall level of Psychological Distress, $r(145) = 0.17$, $p < 0.05$ and more specifically with Depression, $r(145) = 0.22$, $p > 0.01$. The Assimilation scale was marginally correlated with Anxiety, $r(145) = 0.16$, $p = 0.06$. Separation was correlated with Overall Psychological Distress, $r(145) = 0.19$, $p < 0.05$, Stress, $r(145) = 0.22$, $p < 0.01$, and Anxiety, $r(145) = 0.19$, $p < 0.05$. Integration was negatively correlated with Depression, $r(145) = -0.16$, $p < 0.05$. Marginalization was strongly correlated with overall level of Psychological Distress, $r(145) = 0.52$, $p < 0.001$, and all of its subs-scales, Stress, $r(145) = 0.44$, $p < 0.001$, Anxiety, $r(145) = 0.40$, $p < 0.001$, and Depression, $r(145) = 0.56$, $p < 0.001$. Religiosity was marginally inversely correlated with Overall Psychological Distress, $r(145) = -0.14$, $p = 0.09$ and also marginally inversely correlated with Marginalization, $r(158) = -0.14$, $p = 0.09$.

In summary, a higher level of religiosity is associated with greater levels of separation acculturation style and a higher levels of religiosity depicted lower symptoms

of depression, which supports our hypothesis. Assimilation appears to be associated with greater psychological distress, more specifically with depression and anxiety, which is contrary to our hypothesis. Separation also appears to be related with higher levels of psychological distress, more specifically with stress and anxiety, which supports our hypothesis. Higher reported Integration acculturation style is associated with lower rating on depressive symptoms, supporting our hypothesis. Marginalization seems to have the greatest impact on all measure of dependent variables, also supporting our hypothesis. Thus, higher ratings on the Marginalization scale are associated with higher levels of overall psychological distress, stress, anxiety, and depression. Interestingly, higher levels of religiosity appear to predict lower levels of psychological distress, which supports our hypothesis, and those with higher levels of religiosity are not related to a marginalization acculturation strategy, which is contrary to our hypothesis.

Regression Analysis

Stepwise regression analyses were conducted to examine the role of religiosity on the relationship between acculturation and psychological distress. Table 4a – 4d display significant predictors for Overall Psychological Distress, Stress, Anxiety, and Depression. Each stepwise regression for each dependent variable included all of the acculturation strategies as predictor followed by adding Religiosity to each regression in order to observe any changes in the models.

The results of the first regression predicting Overall Psychological Distress indicated one predictor that explained 27% of the variance ($F(1, 143) = 51.77, p < .001$). It was evident that Marginalization significantly predicted Overall Psychological Distress ($b = 0.50, t(144) = 7.20, p < .001$). The second regression predicting Stress indicated one

predictor that accounted for 20% of the variance ($F(1, 143) = 34.57, p < .001$). Again, Marginalization significantly predicted Stress ($b = 0.17, t(144) = 5.88, p < .001$).

The third regression predicting Anxiety indicated one predictor that explained 16% of the variance ($F(1, 143) = 27.00, p < .001$). Marginalization significantly predicted Anxiety ($b = 0.12, t(144) = 5.20, p < .001$). The fourth regression predicting Depression indicated one predictor that accounted for 31% of the variance ($F(1, 143) = 65.30, p < .001$). Marginalization significantly predicted depression ($b = 0.21, t(144) = 8.08, p < .001$). Adding Religiosity as a predictor to any of these models did not have any effect on them.

Interestingly, Marginalization was the strongest predictor for Overall Psychological Distress, as well as Stress, Anxiety, and Depression individually. Since Marginalization accounted for most of the variance, the regressions were re-computed without Marginalization as a predictor variable to clarify the impact of the other predictor variables. The results notably differed.

The first regression (without Marginalization as a predictor variable) predicting Overall Psychological Distress indicated two predictors that explained 8% of the variance ($F(2, 142) = 6.38, p < .05$). Separation was a significant predictor of Overall Psychological Distress ($b = 0.33, t(144) = 2.90, p < .05$) as was Assimilation ($b = 0.28, t(144) = 2.71, p < .05$). Both Separation ($R^2 = 0.19$) and Assimilation ($R^2 = 0.17$) were positively correlated with Overall Psychological Distress and accounted for 4% and 5% of the variance, respectively. When Religiosity was added to the model, it accounted for another 3% of the variance ($b = -0.80, t(144) = -2.22, p < .05$) making the final model account for 11% of the variance ($F(3, 141) = 6.00, p < .05$).

The second regression predicting Stress indicated one significant predictor accounting for 5% of the variance, ($F(1, 143) = 7.07, p < .05$). Separation was the strongest predictor of Stress ($b = 0.12, t(144) = 2.66, p < .05$). Again, adding Religiosity to the model did not have any effect on it ($b = -0.16, t(144) = -1.86, p > 0.05$).

The third regression predicting Anxiety indicated two predictors accounting for 8% of the variance, ($F(2, 142) = 5.94, p < .05$). Separation was a significant predictor of Anxiety ($b = 0.10, t(144) = 2.85, p < .05$) as was Assimilation ($b = 0.82, t(144) = 2.56, p < .05$). Separation accounted for 3.5% of the variance, while Assimilation accounted for another 4.3% of the variance. However, adding Religiosity to the model did not change it ($b = -0.153, t(144) = -1.85, p > .05$).

The fourth regression indicated three significant predictors for Depression explaining 11% of the variance ($F(3, 141) = 5.67, p < .05$). Assimilation was a significant predictor of Depression ($b = 0.13, t(144) = 3.31, p < .05$) as was Integration ($b = -1.38, t(144) = -2.13, p < .05$) and Separation ($b = 0.10, t(144) = 2.09, p < .05$). Assimilation accounted for 5% of the variance, Integration accounted for another 3% of the variance, and Separation also accounted for another 3% of variance. Adding Religiosity to the model did not significantly change it ($b = -0.30, t(144) = -2.15, p < 0.05$) however, it was a significant predictor that accounted for another 3% of the variance. Thus, the full model for predicting Depression included four predictors, Assimilation, Integration, Separation, and Religiosity of Depression ($F(4, 140) = 5.52, p < .001$) accounting for 14% of the variance. Assimilation and Separation were positively correlated with Depression, while Integration and Religiosity were negatively correlated

with Depression. Table 5a to 5d display the significant models without Marginalization as a predictor variable.

In summary, Marginalization appears to be the strongest predictor of Overall Psychological Distress, Stress, Anxiety, and Depression. However, after removing Marginalization as a predictor, other predictor variables appeared to play a key role. Separation, Assimilation and Religiosity appeared to be the strongest predictors of Overall Psychological Distress. Separation was the strongest predictor of Stress. Separation and Assimilation were the strongest predictors of Anxiety. Separation, Assimilation, Integration, and Religiosity were strongest predictors of Depression. After removing Marginalization as a predictor, a clearer understanding of all the other predictor variables was acquired. Separation appeared to be the next strong predictor after Marginalization was removed. Religiosity had a minor impact on the relationship between acculturation and psychological distress. Acculturation strategies appeared to have a greater impact on psychological distress.

Ancillary Analysis

Due to low variability (e.g. Overall Psychological Distress $\sigma = 118.63$) in the dependent measure and skewness (e.g. Skewness of Overall Psychological Distress = 1.17) in the data, it was difficult to obtain strong correlations with the independent variables. Furthermore, this restriction of range limits the amount of variance (R^2) the independent variable can account for towards the dependent variables. With that being said the reader should be cautious about drawing any conclusions beyond the results of this study and sample population. To further explore the main results presented above, a

Fisher Z-transformation was performed on various Pearson correlations that may further inform the findings of our study. Only the significant comparisons are presented.

The relationship between Religiosity and two acculturation strategies, Assimilation and Integration, was examined. Religiosity was negatively correlated with Assimilation, however the relationship was not statistically significant, $r(158) = -0.13, p > 0.05$. Religiosity was also not significantly correlated with Integration but the relationship was in positive direction, $r(158) = 0.11, p > 0.05$. A Z-score based on the difference between these two correlations was statistically significant, $Z = -2.06, p < 0.05$, using a one-tailed test of significance. Thus, the relationship between Religiosity and Assimilation was significantly lower in comparison to Religiosity and Integration. This, alludes that participants who had higher levels of Religiosity rated lower on the Assimilation scale in comparison to the Integration scale.

The relationship between Religiosity and two acculturation strategies, Separation and Marginalization was tested. Religiosity was positively correlated with Separation, $r(158) = 0.23, p < 0.05$. However, Religiosity was marginally negatively correlated with Marginalization, $r(158) = -0.14, p = 0.08$. The difference between these correlations was statistically significant, $Z = 3.2, p < 0.01$, using a two-tailed test of significance. Thus, the relationship between Religiosity and Separation is significantly higher in comparison to the relationship between Religiosity and Marginalization. This means that participants with higher levels of Religiosity had higher ratings on Separation scale in comparison to Marginalization.

The relationship between two acculturation strategies of Integration and Assimilation, and Overall Psychological Distress was tested. Integration was not

correlated with Psychological Distress, $r(145) = -0.10, p > 0.05$. Assimilation was correlated with Psychological Distress, $r(145) = 0.17, p < 0.05$. The difference between these correlations was statistically significant, $Z = -2.27, p < 0.05$, using a one-tailed test of significance. Thus, the relationship between Integration and Overall Psychological Distress is significantly lower than Assimilation and Overall Psychological Distress. In other words, participants that Integrated had much lower levels of Overall Psychological Distress in comparison to participants who report higher assimilation.

The relationship between two acculturation strategies of Separation and Marginalization was tested with dependent variable, Stress. Separation was correlated with Stress, $r(145) = 0.22, p < 0.01$. Marginalization was correlated with Stress, $r(145) = 0.44, p < 0.001$. The difference between these correlations was significant, $Z = -2.08, p < 0.05$, using a one-tailed test of significance. Thus, the relationship between Separation and Stress was significantly lower than Marginalization and Stress. Thus, participants that rated higher on Separation scale had lower ratings of Stress in comparison to participants who rated higher on Marginalized scale.

In summary, these comparisons tell us that after transforming the correlations, we still obtain significant differences between them. In other words, despite the lack of variance and skewness in the data, this normalizing test articulates the strength these correlations may hold. The correlations presented above appear to be significantly different from each other, which portrays the robustness of the correlations between the independent and dependent variables.

Descriptive Statistics

Table 1
Characteristics of the study population.

	Total sample (n = 189)	Pakistani (n = 128)	Arab American (n = 51)
Type	150	99	41
Online	39	29	10
In-person			
Gender			
Female	129	81	39
Male	59	46	12
Age			
Mean	35	37	30.6
SD	11.9	12.7	9.6
Education			
College graduate and higher			
Percent	77.2	82.1	76.5
N	146	105	39
Socioeconomic Status			
Middle class and higher			
Percent	81.7	90.6	74.5
N	160	116	38
Years in U.S.			
Mean	22.39	22.72	22.9
SD	9.9	9.0	12.1
U.S born			
Percent	11	7.8	19.6
N	21	10	10
State of Residence			
New Jersey			
Percent	40.2	39.8	49
N	76	51	25
Michigan			
Percent	56.6	57.0	49
N	107	73	25

Table 2
Descriptive statistics for the main variables.

	Total sample (n = 189)	Pakistani (n = 128)	Arab American (n = 51)
Religiosity			
Mean	173.53	174.8	172.55
SD	35.61	35.0	35.52
Assimilation			
Mean	32.51	32.87	30.86
SD	9.26	8.71	10.60
Separation			
Mean	25.31	25.75	24.31
SD	8.19	8.17	8.61
Marginalization			
Mean	24.15	24.42	22.50
SD	11.63	11.72	11.18
Integration			
Mean	25.26	25.81	24.19
SD	5.37	5.14	5.88
Psychological Distress			
Mean	11.00	11.36	9.94
SD	10.89	11.16	10.34
Stress			
Mean	4.88	5.06	4.43
SD	4.28	4.29	4.38
Anxiety			
Mean	2.74	2.78	2.60
SD	3.35	3.51	2.91
Depression			
Mean	3.38	3.53	2.91
SD	4.26	4.4	3.97

Correlational Analysis

Table 3

Correlations among Religiosity, Acculturation Strategies, Overall Psychological Distress and Depression, Anxiety, Stress.

	1	2	3	4	5	6	7	8	9
1. Religiosity	--	-.13	.23**	.11	-.14	-.14	-.10	-.11	-.17*
2. Assimilation		--	-.08	.14	.42**	.17*	.08	.16	.22**
3. Separation			--	.09	.27**	.19*	.22**	.19*	.11
4. Integration				--	-.12	-.10	-.08	-.00	-.16*
5. Marginalization					--	.52**	.44**	.40**	.56**
6. Psych Distress						--	.93**	.90**	.92**
7. Stress							--	.77**	.75**
8. Anxiety								--	.74**
9. Depression									--

Note. (n=145). * $p < .05$, ** $p < .01$.

Stepwise Regression Analysis

Table 4a

Stepwise Regression Predicting Overall Psychological Distress on Acculturation Strategies and Religiosity.

Variable	B	SE B	β	T	R^2	F
Step 1					.27*	51.77
Constant	-1.32	1.89		-.697		
Marginalization	.50	.07	.52*	7.20		

Note: * $p < .001$; $df(1, 143)$.

Table 4b

Stepwise Regression Predicting Stress on Acculturation Strategies and Religiosity.

Variable	B	SE B	β	t	R ²	F
Step 1					.20*	34.57
Constant	.74	.78		.95		
Marginalization	.17	.03	.44*	5.89		

Note: * $p < .001$; $df(1, 143)$.

Table 4c

Stepwise Regression Predicting Anxiety on Acculturation Strategies and Religiosity.

Variable	B	SE B	β	t	R ²	F
Step 1					.16*	27.00
Constant	-.19	.62		-.31		
Marginalization	.12	.02	.40*	5.20		

Note: * $p < .001$; $df(1, 143)$.

Table 4d

Stepwise Regression Predicting Depression on Acculturation Strategies and Religiosity.

Variable	B	SE B	β	t	R ²	F
Step 1					.31*	65.30
Constant	-1.87	.72		-2.61		
Marginalization	.21	.03	.56*	8.08		

Note: * $p < .001$; $df(1, 143)$.

Table 5a

Stepwise Regression Predicting Overall Psychological Distress on Acculturation Strategies (Without Marginalization) and Religiosity.

	Variable	B	SE B	β	T	R^2	ΔR^2	F
Step 1						.03*		5.16
	Constant	4.39	3.08		1.42			
	Separation	.26	.11	.19*	2.27			
Step 2						.08*	.05	6.38
	Constant	-6.82	5.12		-1.13			
	Separation	.33	.11	.24*	2.90			
	Assimilation	.28	.10	.22*	2.71			
Step 3						.11*	.03	6.00
	Constant	6.39	7.80		.82			
	Separation	.39	.12	.28*	3.34			
	Assimilation	.27	.10	.21*	2.61			
	Religiosity	-.08	.04	-.18*	-2.22			

Note: * $p < .05$; Step 1 $df(1, 143)$; Step 2 $df(1, 142)$; Step 3 $df(1, 141)$; ΔR^2 is the change in R .

Table 5b

Stepwise Regression Predicting Stress on Acculturation Strategies (Without Marginalization) and Religiosity.

	Variable	B	SE B	β	t	R^2	F
Step 1						.05*	7.07
	Constant	1.85	1.20		1.54		
	Separation	.12	.04	.22	2.66		

Note: * $p < .05$; $df(1, 143)$.

Table 5c
 Stepwise Regression Predicting Anxiety on Acculturation Strategies (Without
 Marginalization) and Religiosity.

Variable	B	SE B	β	T	R ²	ΔR^2	F
Step 1					.04*		5.11
Constant	.71	.95		.75			
Separation	.08	.04	.19	2.26			
Step 2					.08*	.04	5.94
Constant	-2.56	1.58		-1.62			
Separation	.10	.05	.24	2.85			
Assimilation	.08	.03	.21	2.57			

Note: * $p < .05$; Step 1 $df(1, 143)$; Step 2 $df(1, 142)$; ΔR^2 is the change in R.

Table 5d
 Stepwise Regression Predicting Depression on Acculturation Strategies (Without
 Marginalization) and Religiosity.

	Variable	B	SE B	β	T	R^2	ΔR^2	F
Step 1						.05*		7.53
	Constant	-.22	1.37		-.16			
	Assimilation	.12	.04	.25*	2.74			
Step 2						.08*	.03	6.18
	Constant	3.30	2.12		1.56			
	Assimilation	.11	.04	.23*	2.86			
	Integration	-.14	.07	-.17*	-2.15			
Step 3						.11*	.03	5.67
	Constant	.15	2.57		.06			
	Assimilation	.13	.04	.27*	3.31			
	Integration	-.14	.07	-.17*	-2.13			
	Separation	.09	.04	-.17*	2.09			
Step 4						.14*	.03	5.52
	Constant	4.70	3.31		1.42			
	Assimilation	.13	.04	.26*	3.20			
	Integration	-.12	.07	-.15*	-1.86			
	Separation	.12	.05	.21*	2.56			
	Religiosity	-.03	.01	-.18*	-2.15			

Note: * $p < .05$; Step 1 $df(1, 143)$; Step 2 $df(1, 142)$; Step 3 $df(1, 141)$; Step 4 $df(1, 140)$; ΔR^2 is the change in R.

Chapter 5

Discussion

Acculturation and Psychological Distress

The present study investigated the impact of religiosity on acculturation and psychological distress in Arab-American and Pakistani populations. It is evident that the first hypothesis was supported in our study. Marginalization was significantly correlated with Overall Psychological Distress, Stress, Anxiety, and Depression. Thus, participants who adopted a marginalization acculturation strategy reported higher ratings of general as well as specific psychological discomfort. This outcome supports claims of previous studies. Gupta, Leong, Valentine, & Canada, (2013) pointed out that identifying with a specific culture is a protective factor against mental health problems. Marginalized individuals do not identify with the new culture nor their culture of origin. Thus, marginalized individuals may seem culturally lost in their environment increasing their level of distress.

On the other hand, Integration was negatively correlated with the Depression scale. Thus, individuals who reported higher levels of integration showed lower depressive indicators. This too comes as no surprise as integrated individuals are able to balance between the new culture and their culture of origin. Gupta et al., (2013) point out that greater acculturation to the American culture is associated with less depression. Furthermore, Jadalla & Lee (2013) found out that “Americanization”, or assimilating, is

associated with better mental health. However, it is peculiar to note that integration did not seem to have a significant relationship with the other dependent variables, such as Overall Psychological Distress, Stress, and Anxiety. Nonetheless, the relationship between Integration and those dependent variables was a negative one. Integration itself is stressful, yet instills some hope and reduces social isolation. This could explain why integration associated with lower depressive ratings over the other dependent variables. The process of integration tends to alleviate symptoms of depression by creating a sense of belonging in the individual. Thus, it could be speculated that the absence of a significant correlation between integration and the other dependent variables could be due to how the process of integrating can create stress and anxiety, but while doing so, it may diminish depressive symptoms.

Religion and Psychological Distress

Our second hypothesis had predicted a negative relationship between Religiosity and Overall Psychological Distress. It is evident that this was supported as well. Religiosity scores were inversely related to Depression and Overall Psychological Distress, however, the association between Religiosity and Overall Psychological Distress was marginally significant. This is interesting to note because a relationship between religion and psychological well-being has not been directly studied in Muslim populations. The studies that have been done focus on Arab American populations, thus they cannot speak to the entire Muslim population. A meta-analysis on religion and mental health across religions concludes that religious involvement in general is typically a protective factor for psychological distress and mental illness (Levin, 2010). In addition, the study found religion to be protective against depression, anxiety, suicide,

delinquency, and alcohol use, just to name a few (Levin, 2010). Thus, our finding is supportive of Levin's analysis and is suggestive of the vital role religion has in these immigrant populations.

Furthermore, it is interesting to note that even though the other sub-categories of overall psychological distress, specifically pertaining to stress and anxiety, also showed a negative relationship with religiosity, as predicated, they were not statistically significant. This lack of significance between religiosity and dependent variables, stress and anxiety, could be due to how religiosity may bring a sense of security and optimism, which may hinder depressive factors and overall psychological distress. On the other hand, factors of religiosity such as, fear of death or getting punished for sinning can possibly increase stress and anxiety in the individual.

Acculturation and Religion

The third prediction about the relationship between religion and acculturation strategy was partially supported as well. Specifically, religiosity was positively correlated with separation. Thus, participants who reported a greater level of separated acculturation style had higher ratings of Religiosity. Abu-Rayya & Abu-Rayya, (2009), also saw this trend. Palestinians identified more with their ethnic identity and religious identity rather than the dominant Israeli identity. Even though through the Abu-Rayya & Abu-Rayya, (2009) finding may not be truly applicable to the immigrants in the Western world due to the groups history and present day friction, the tendency to identify with the culture origin during stressful times may be similar.

However, contradictory to our hypothesis, marginalization was negatively correlated with religiosity. In retrospect this outcome makes sense because individuals who do not identify with either culture will also distance themselves with religion. On the other hand, individuals who are separated are only distant from the host culture, but still maintain a connection with their culture of origin, which most likely keeps them closer to religion.

The relationship of religiosity with both assimilation and integration was not statistically significant. However, it is interesting to note the direction of the relationship was partially supported in our hypothesis despite the lack of statistical significance. The direction of the relationship between religiosity and assimilation was negative, as we had predicted. Conversely, the relationship between religiosity and integration was positive, contradictory to our hypothesis. Thus, participants who fit the assimilated acculturation style had lower ratings of religiosity. This makes sense because assimilation comes with shedding of the original culture. This means that the individual must compromise some of their roots in order to adapt to the new culture. Conversely, an integration acculturation style reflects the ability to balance these factors; and retain religious beliefs and practices. Furthermore, these individuals may be using religion to stay attached to their origins without it affecting their adaption. This conclusion is only tentative and cannot be fully supported due to lack of statistical significance but warrants further investigation.

Religion, Acculturation, and Psychological Distress

Our last hypothesis concerning religiosity as the moderator between acculturation and psychological distress was partially supported in our findings. Religiosity did not moderate the relationship between reported style of acculturation and psychological

distress. A high level of marginalization was the strongest predictor of all psychological distress measures. This is consistent with Berry's (1997) observation that marginalization is the least successful acculturation strategy, as it consists of the both rejection of the dominant society and own-culture loss, which results in hostility and little social support. Thus, this lack of identification to either cultures greatly increases psychological distress, as evident in our findings. Furthermore, the fact that perhaps religion did not appear to play a critical role as a moderator in the model could be because those who have the highest level of distress, those who are marginalized, also have low ratings of religiosity. This may in a sense mask the impact of religion, as the range of religiosity and the dependent measures is restricted for this group.

To further explore this notion, a post hoc analysis was conducted, leaving the Marginalization scale out of the model. Interestingly, with Marginalization eliminated, the other predictors, including the variables of Separation, Assimilation, and Religiosity together emerged as the strongest predictors of overall psychological distress. The fact that religiosity played a key role in the model is notable. Thus, Religiosity does play a role in psychological well-being; however, higher reported Acculturation strategies appeared to have a stronger effect in comparison to religiosity. Additionally, when Marginalization was left out of the equation, religiosity is also one of the significant predictors for depression. This reflects that for those who have maintained cultural contact with their culture of origin, or blended with the host culture, religious life retains a strong influence on their wellbeing.

As noted, once Marginalization was removed as a predictor, the other acculturation scales were significant predictors for symptoms of psychological distress.

Without Marginalization, Separation would be the next strongest predictor. Both of these acculturation strategies consist of cultural shedding to some degree. Separation involves detaching from the new culture, while marginalization, involves detaching from the new culture and the culture of origin. This cultural shedding or detachment from either culture plays a vital role in psychological well-being and how the individual comes to experience and adapt to the new culture. Similarly, Fassaert et al. (2011) found that Turkish and Moroccan Muslims in Dutch society who were essentially separated from the dominant culture as they maintained their traditional culture, values and norms experienced lower distress. However, lack of skills such as language put them at a greater disadvantage and greater risk of psychological distress.

Furthermore, our last model predicting depression was unique, as it showed Assimilation as the strongest predictor, Integration as the second, Separation as the third, and Religiosity as the fourth. As suggested, assimilation involves shedding the culture of origin while conforming to the host culture. This outcome in hindsight is also not surprising because the cultural shedding may bring about a sense of loss. However, this outcome is contrary to previous findings. Schmitz & Berry (2009) point out that assimilated individuals follow an anxious acculturation style because they do their best to fit into the dominant culture and avoiding it may cause conflict.

The main finding in this investigation was Marginalization as the strongest predictor of Overall Psychological Distress, Stress, Anxiety, and Depression. The inclusion of Marginalization led to exclusion of all other predictors. This is interesting to note because it depicts the intensity of this acculturation style. Going back to the definition of Marginalization, the individual does not maintain any cultural identity, hints

at the idea of social exclusion. By definition, social exclusion is when a society builds an environment or circumstances that keep out certain groups or individuals, which in turn can put the individual or group at a social, economic, or political disadvantage (Silver, 1994). However, Silver also highlights that “marginal or deviant individuals may not want to be included; they can deliberately choose to be social drop-outs” (Silver, 1994, p. 545). Furthermore, the isolation and diversity among the marginalized individuals prevents them from being included, which constitutes a level of social exclusion that needs further investigation (Silver, 1994). Thus, to some degree marginalization can be a form of social exclusion, the only difference being society creating boundaries leading to separation or the individual choosing to isolate themselves. Both of these notions can hinder social life, prevent jobs progression, and most importantly create stress.

Arab Americans and Pakistani’s are already different from the dominant American culture. They speak a different language, follow different cultural norms, and have different beliefs. Therefore, when they choose to marginalize, they choose to separate themselves from the dominant culture and their own culture, leaving them misplaced. Thus, this could explain the strong outcome of marginalization in our data. Separation, Assimilation, and Integration strategies all have a sense of belongingness to a group and culture; creating an identity, support system, and purpose for the individual.

The lack of cultural maintenance comes with a heavy price. Studies of social exclusion suggest it causes of anxiety, increases self-defeating behavior, aggressive behavior, and decreases prosocial behavior (Baumeister & Tice, 1990; Twenge, Baumeister, Tice, & Stucke, 2001; Twenge, Ciarocco, & Baumeister, 2001; Twenge, Catanese, & Baumeister, 2002). An experiment conducted by Baumeister, Twenge, and

Nuss (2002) indicated that social exclusion was associated with decline in cognitive performance on complex mental tasks, effecting the speed and accuracy on the tasks (Baumeister, Twenge, & Nuss, 2002). Even though this study doesn't represent the effects of marginalization, it does allude to the negative effect of social isolation.

Ancillary Results

Due to skewness in our data, a Fisher Z-transformation was conducted upon various correlations to further support the outcomes and explore the differences among our correlations. Since our data was not normally distributed, the purpose of this transformation was to make the sampling distribution of the transformed coefficients normally distributed. If the test of the transformed coefficients was significant it indicated that the population correlations significantly differ from each other.

A Fisher's Z-transformation test is an approximate variance stabilizing transformation. A significant transformed coefficients comparison indicated that the population correlations significantly differ from each other. Our transformation tested Religiosity with Assimilation and Integration; Religiosity with Separation and Marginalization; Psychological Distress with Assimilation and Integration; and Stress with Marginalization and Separation. Each of these correlation comparisons were significant when tested. The significance from these comparisons demonstrates that the correlations are significantly different than zero and that the null hypothesis can be rejected. In other words, the results of this transformation indicate that there are significant correlations present in our data after accounting for the lack of variance and skewness. Thus, even though our results are limited, it is still possible to conclude (with caution) that there are important correlations present.

It was evident that the inverse relationship between Religiosity and Assimilation is significant in comparison to Religiosity and Integration. It was predicted in our hypothesis that the relationship between Religiosity and both of these acculturation strategies would be inverse. Thus, the result from our test does support our hypothesis of inverse relationship between Religiosity and Assimilation. The comparison of Religiosity with Separation and Marginalization was partially supported in accordance to our hypothesis. It was predicted that separated and marginalized individuals would have higher Religiosity. The comparison depicted that correlation of Religiosity and Separation had a stronger positive relationship in comparison to Marginalization. This makes sense because individuals who are high on religiosity will more likely be separated rather than marginalized. As separated individuals they would incline towards conserving their religion.

Furthermore, it was predicted that reported higher integration would have an inverse relationship with Psychological Distress. This also manifested in our test as the relationship between Integration and Psychological Distress was significantly lower. However, contrary to our hypothesis, Assimilation and Psychological Distress had a positive relationship. Lastly, the comparison of Stress with Separation and Marginalization was also supportive of our hypothesis of a positive relationship between these variables. However, the relationship between Stress and Separation was significantly lower in comparison to Marginalization. These comparisons essentially display the presence of meaningful correlations in our data that are supportive to our hypothesis and insightful towards the population under study.

Limitations

The present study suggests that the relationship between religiosity, acculturation, and psychological distress is a complex one. It is important to note that the outcomes of this study are not absolute. Firstly, our dependent measure (DASS) regarding Over Psychological Distress and its sub-scales, Stress, Anxiety, and Depression had low variance. In other words, the majority if not all of the participant's ratings on these scales ranged from 0-1 while the scale itself ranges from 0-3. Thus, this results in a restriction of range, which greatly reduces the variance in our dependent measure. This also restricts us from drawing any concrete conclusions from our data. As previously mentioned, in order to resolve this limitation, the scale was transformed and recoded into a dichotomous scale.

There are a couple reasons why this restriction of range occurred in the study. It is possible that the participants did not feel comfortable reporting their level of distress. The DASS scale is designed to measure direct experiences related to anxiety, stress, and depression. It is possible that the rawness of the items may have resulted in the participants to inaccurately report their psychological experiences. Previous literature suggests that what we experience could be a response bias. Acquiescence, is the tendency to give a response that is socially acceptable even if it is not the true response (Yang, Harkness, Chin & Villar, 2010). Baron-Epel, Kaplan, Weinstein, and Green (2010) found out that Arabs have a greater tendency of giving extreme and acquiescence biased responses.

It could be argued that the questionnaire was difficult to understand, however, that should not be the case, since our demographic shows that the majority of our participants were well-educated and fluent in English. Furthermore, the DASS has been used across

cultures (Lovibond & Lovibond, 1993), thus this is not the first time it has been used in the Eastern populations. Conversely, it is also possible that the participants are actually happy, explaining the low ratings on the DASS measure. In summary, due to the restriction in range, the regression models were unable to account for a large quantity of variance; nonetheless the models still accounted for an acceptable amount of prediction. Despite the low variance in the dependent measure, the trends revealed could support a plausible theory.

Additionally, there was evidence of multicollinearity and skewness in the data. Due to the high correlation among the predictor variables, it is difficult to conclude how well each predictor independently accounts for the outcome variable. There was also evidence of skewness in the dependent measure and the religiosity measure. The skewness in the dependent measure is again due to the lack of variance in the responses, which has been explained earlier. The skewness in the religiosity scale also creates limitations. Many participants rated their religiosity as high. An explanation for this skewness could be due to how our participants were sampled. To reiterate, our sample was taken from local mosques, thus these individuals are regular mosque goers, who dedicate and spend their free time in the mosque. Thus, by default these individuals may already have high religiosity. Whereas, individuals who are low in religiosity may not go to the mosque at all. Conversely, it is possible that individuals who are low in religiosity may not report that accurately due to feeling shame or ridiculed.

Due to the skewness in the data and the low variance in our dependent measure, an additional analysis was conducted, Fisher Z-transformation, to explore any difference between the correlations. The ancillary results were promising as they were able to show

that the correlations are significantly different from each other. With that being said, the results of this investigation and the discussion of the results above should be taken with caution and should be limited to the population of this study. They only give a glimpse of the true nature the associations in this population and are not in any way a solid conclusion. They are exploratory in nature.

Conclusion and Future Studies

From the present investigation it is evident that participants' reported acculturation strategy levels and level of religiosity effects psychological distress. More specifically, higher levels of acculturation strategies associated with cultural shedding, such as marginalization and separation, increase distress. Even though religiosity did not significantly moderate this relationship, it did prove to account for some variance in the models. Thus, together, an individual's acculturation strategy and their level of religiosity can account for and to some degree predict their psychological disturbance. The findings of the present investigation have great implications to this gap in research concerning Arab-Americans and Pakistanis. This study merely depicts how acculturation and religion together play a vital role in the Arab-American and Pakistani.

The findings of this study can be utilized in the research and clinical field. Research regarding Arab-Americans and Pakistani is scarce. The research that has been done also poses many gaps. Thus, this study aimed to fill in those gaps concerning religion and acculturation in these populations. Therapists can use this as a means of producing appropriate therapy from a cultural and religious background. It can help provide insight to therapist about factors that play a vital role in these individuals lives

and allow them to use such knowledge to gain a better understanding of such clients and provide more individualized therapy.

Any conclusions from this study may be supported by some further investigation. Firstly, a larger sample size and sampling non-mosque goers may exemplify the interplay of acculturation and religiosity in accordance to psychological well-being. It may also reduce the effects of low variance and skewness in the data. Secondly, a culturally sensitive psychological distress measure may also help further investigate our theory. There is a great lack of measurements that are directly suited for the Arab-American and Pakistani populations. Many of the scales created and utilized are greatly limited by the response style among these populations. In the future, a measure that is able to capture the level of psychological distress in these immigrant population may allow us to draw stronger conclusions.

References

- Abu Raiya, H., Pargament, K., Stein, C., Mahoney, A., & Zickar, M. (2008). A psychological measure of islamic religiousness: Evidence for relevance, reliability and validity (Unpublished doctoral dissertation). Graduate College of Bowling Green State University. (THESIS)
- Abu Raiya, H., Pargament, K., Mahoney, A., & Stein, C. (2008). A psychological measure of islamic religiousness: Development and evidence for reliability and validity. *The International Journal for the Psychology of Religion*, 18, 291-315.
- Abu-Raiya, H., & Pragament, K. (2011). Empirically based psychology of islam: Summary and critique of the literature. *Mental Health, Religion, & Culture*, 14(2), 93-115.
- Abu-Rayya, H., & Abu-Rayya, M. (2009). Acculturation, religious identity, and psychological well-being among Palestinian in Israel. *International Journal of Intercultural Relations*, 33, 325-331.
- Amer, M., & Hovey, J. (2005). Examination of the impact of acculturation, stress, and religiosity on mental health variables for second-generation arab americans. *Ethnicity and Disease*, 15.
- Amer, M., & Hovey, J. (2007). Socio-demographic differences in acculturaiton and mental health for a sample of 2nd generation immigrant arab americans. *Journal of Immigrant Minority Health*, 9, 335-347.
- Antony, M., Bieling, P., Cox, B., Enns, M., & Swinson, R. (1998). Psychometric properties of the 42-item and 21-item versions of the depression anxiety stress scales in clinical groups and a community sample. *Psychological Assessment*, 10 (2), 176-181.
- Aprahamian, M., Kaplan, D., Windham, A., Sutter, J., & Visser, J. (2011). The relationship between acculturation and mental health of Arab Americans. *Journal of Mental Health Counseling*, 33(1), 80-92.
- Baron-Epel, O., Kaplan, G., Weinstein, R., & Green, M. (2010). Extreme and acquiescence bias in a bi-ethnic population. *European Journal of Public Health*, 20(5), 543-548.
- Barry, D. (2001). Development of a new scale for measuring acculturation: The east asian acculturation measure (EAAM). *Journal of Immigrant Health*, 3(4), 193-197.

- Berry, J., Kim, U., Young, M., & Bujaki, M. (1989). Acculturation attitudes in plural societies. *Applied Psychology: An International Review*, 38(2), 185-206.
- Berry, J. (1997). Immigration, acculturation, adaptation. *Applied Psychology: An International Review*, 46(1), 5-68.
- Berry, J. (2005). Acculturation: Living successfully in two cultures. *International Journal of Intercultural Relations*, 29, 697-712.
- Berry, J., & Sabatier, C. (2011). Variations in the assessment of acculturation attitudes: Their relationship with psychological wellbeing. *International Journal of Intercultural Relations*, 35, 658-669.
- Baumeister, R., & Tice, D. (1990). Anxiety and social exclusion. *Journal of Social and Clinical Psychology*, 9, 165-195.
- Baumeister, R., Twenge, J., & Nuss, C. (2002). Effects of social exclusion on cognitive processes: Anticipated aloneness reduces intelligent thought. *Journal of Personality and Social Psychology*, 83(4), 817-827.
- Fassaert, T., De Witt, M., Tuinebreijer, W., Knipscheer, J., Verhoeff, A., Beekman, A., & Dekker, J. (2011). Acculturation and psychological distress among non-western muslim migrants- A population-based survey. *International Journal of Social Psychiatry*, 57(2), 132-143.
- Gupta, A., Leong, F., Valentine, J., & Canada, D. (2013). A meta-analytic study: The relationship between acculturation and depression among asian americans. *American Journal of Orthopsychiatry*, 83(3), 372-385.
- Gungor, D., Fleischmann, F., Phalet, K., & Maliepard, M. (2013). Contextualizing religious acculturation. *European Psychologist*, 18(3), 203-214.
- Jabeen, T., & Khalid, R. (2010). Predictors of psychological well-being of Pakistani immigrants in Toronto, Canada. *International Journal of Intercultural Relations*, 34, 452-464.
- Jadalla, A., & Lee, J. (2012). The relationship between acculturation and general health of Arab American. *Journal of Transcultural Nursing*, 23(2), 159-165.
- Levin, J. (2010). Religion and mental health: Theory and research. *International Journal of Applied Psychoanalytic Studies*, 7(2), 102-115.
- Lovibond, S. H., & Lovibond, P. F. (1993). Manual for the Depression Anxiety Stress Scales (DASS). Psychology Foundation Monograph (Available from the Psychology Foundation, Room 1005 Mathews Building, University of New South Wales, NSW 2052, Australia).
- Lovibond, P. F., & Lovibond, S. H. (1995). The structure of negative emotional states: Comparison of the Depression Anxiety Stress Scales (DASS) with the Beck

- Depression and Anxiety Inventories. *Behaviour Research and Therapy*, 33, 335-342.
- Malik, I. (1989). *Pakistanis in michigan: A study of third culture and acculturation*. New York: AMS Press.
- Mohamed, B. (2016, January 6). A new estimate of the U.S. muslim population. Retrieved from Pew Research Center website: <http://www.pewresearch.org/fact-tank/2016/01/06/a-new-estimate-of-the-u-s-muslim-population/>
- Putri, D., & Amalia, D. (2014). Religiosity and adversity quotient of muslims in poor community. *International Proceedings of Economics Development and Research*, 73, 14- 18.
- Schmitz, P., & Berry, J. (2009). Structure of acculturation attitudes and their relationships with personality and psychological adaptation: A study with immigrant and national samples in germany. In Boehnke, Proceedings of IACCP congress (Bremen- on line) (pp. 52-70).
- Silver, H. (1994). Social exclusion and social solidarity: Three paradigms. *International Labour Review*, 133(5), 531-578.
- Twenge, J., Baumeister, R., Tice, D., & Stucke, T. (2001). If you can't join them, beat them: Effects of social exclusion on aggressive behavior. *Journal of Personality and Social Psychology*, 81, 1058–1069.
- Twenge, J., Catanese, K., & Baumeister, R. (2002). Social exclusion causes self-defeating behavior. *Journal of Personality and Social Psychology*, 83, 606–615.
- Twenge, J., Ciarocco, N., & Baumeister, R. (2001). *Help! I need somebody: Effects of social exclusion on prosocial behavior*. Unpublished Manuscript.
- Yang, Y., Harkness, J., Chin, T.-Y., & Villar, A. (2010). Response styles and culture. In J. Harkness, M. Braun, B. Edwards, T. Johnson, L. Lyberg, P. Mohler, . . . T. Smith (Authors), *Survey methods in multinational, multiregional, and multicultural contexts* (pp. 203-223). John Wiley & Sons.

Appendix A: Demographic Questionnaire

Please answer the following questions about yourself.

1) Gender

_____ Male

_____ Female

2) What year were you born in?

3) Cultural Background

_____ Arab American

_____ Pakistani

4) What is your level of Education?

_____ Grade 12 or GED (High school graduate)

_____ College 1 year to 3 years (Some college or technical school)

_____ College 4 years (College graduate)

_____ Graduate School (Advanced Degree)

_____ Other (please specify)

5) In terms of income, would you say you or your family is:

_____ Upper class

_____ Upper-middle class

_____ Middle class

_____ Lower-middle class

_____ Lower class

_____ Decline to answer

6) For how long have you been living in the U.S.?

Appendix B: Psychological Measure of Islamic Religiousness

Part 1. This part of the questionnaire will ask about beliefs, attitudes, and practices in regards to Islam. Please answer to the best of your ability.

IBS

Please circle the answer that best indicates your reaction to each the following statements.

The rating scale is as follows:

No (0), Uncertain (1), and Yes (2)

1. I believe in the existence of Allah	0	1	2
2. I believe in the Day of Judgment	0	1	2
3. I believe in the existence of paradise and hell	0	1	2
4. I believe in the existence of the angels, the Jinn, and Satan	0	1	2
5. I believe in all the prophets that Allah sent and in the sacred texts that were revealed to them	0	1	2

IEPS

Please circle the answer that best indicates your reaction to each the following statements.

Strongly disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly agree (5)					
1.	Because of Islam, I strive to be a humble person				1	2	3	4	5
2.	Because of Islam, I do my best to honor my parents				1	2	3	4	5
3.	Because of Islam, I try to help my relatives and neighbors				1	2	3	4	5
4.	Because of Islam, I try to help the needy and the orphans				1	2	3	4	5
5.	Because of Islam, I strive to be a tolerant person				1	2	3	4	5
6.	Because of Islam, I refrain from eating pork				1	2	3	4	5

7.	Because of Islam, I refrain from drinking alcohol	1	2	3	4	5
8.	Because of Islam, I refrain from having sex before marriage or outside marriage	1	2	3	4	5
9.	Because of Islam, I do not consider committing suicide	1	2	3	4	5
10.	Because of Islam, I refrain from gossip	1	2	3	4	5

IUS

Please circle the answer that best indicates your reaction to each the following statements.

Strongly disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly agree (5)				
1.	I consider every Muslim in the world as my brother or sister			1	2	3	4	5
2.	I emphasize with the suffering of every Muslim in the world			1	2	3	4	5
3.	One of my major sources of pride is being a Muslim			1	2	3	4	5
4.	I believe that brotherhood and sisterhood is one the basic tenets of Islam			1	2	3	4	5

IRCS

Please answer yes or no to the following statement

In my life, I have changed from a non-religious person to a religious person

No (0)

Yes (1)

If your answer to the above statement is yes, please circle the answer that best indicates your reaction to each of the following statements. If you answered no, please skip this and continue on to the next set of questions under IDS.

Strongly disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly agree (5)				
1.	Becoming more involved in Islam was a turning point in my life			1	2	3	4	5
2.	Islam has moved from the outside to the very center of my life			1	2	3	4	5
3.	At one point in my life, I realized that Islam is the solution to all of my problems			1	2	3	4	5

4.	All at once, I felt that my life has no meaning without Islam	1	2	3	4	5
5.	All at once, I felt that I am on the wrong path and that I should follow the path of Allah	1	2	3	4	5
6.	In comparison to the way I used to be, Islam touches every aspect of my life	1	2	3	4	5

IIS

Please circle the answer that best indicates your reaction to each the following statements.

Not Applicable (0) Not at all true (1) Usually not true (2) Usually true (3) Very true (4)

1.	I pray because I enjoy it	0	1	2	3	4
2.	I pray because I find it satisfying	0	1	2	3	4
3.	I read the Holy Qura'n because I feel that Allah is talking to me when I do that	0	1	2	3	4
4.	I read the Holy Qura'n because I find it satisfying	0	1	2	3	4
5.	I fast in Ramadan because when I fast I feel close to Allah	0	1	2	3	4

IPRCS

Please circle the answer that best indicates your reaction to each the following statements.

I do not do this at all (1) I do this a little (2) I do this a medium amount (3) I do this a lot (4)

1.	When I face a problem in life, I look for a stronger connection with Allah	1	2	3	4
2.	When I face a problem in life, I consider that a test from Allah to deepen my belief	1	2	3	4
3.	When I face a problem in life, I seek Allah's love and care	1	2	3	4
4.	When I face a problem in life, I read the Holy Qura'n to find consolation	1	2	3	4
5.	When I face a problem in life, I ask for Allah's forgiveness	1	2	3	4

- | | | |
|----|--------------------------------------------------------------------------------------|---------------|
| 6. | When I face a problem in life, I remind myself that Allah commanded me to be patient | 1 2 3 4 |
| 7. | When I face a problem in life, I do what I can and put the rest in Allah's hands | 1 2 3 4 |
-

PARS

Please circle the answer that best indicates your reaction to each the following statements.

I do not do this at all (1) I do this a little (2) I do this a medium amount (3) I do this a lot (4)

- | | | |
|----|--------------------------------------------------------------------------------------------------|---------------|
| 1. | When I face a problem in life, I believe that I am being punished by Allah for bad actions I did | 1 2 3 4 |
| 2. | When I face a problem in life, I wonder what I did for Allah to punish me | 1 2 3 4 |
| 3. | When I face a problem in life, I feel punished by Allah for my lack of devotion | 1 2 3 4 |
-

IRSS

Please circle the answer that best indicates your reaction to each the following statements.

- | | | | | |
|-----------|----------------------------------------------------------|---------------|-----------|----------------|
| Never (0) | Rarely (1) | Sometimes (2) | Often (3) | Very often (4) |
| <hr/> | | | | |
| 1. | I find myself doubting the existence of Allah | | | 1 2 3 4 |
| 2. | I find some aspects of Islam to be unfair | | | 1 2 3 4 |
| 3. | I find myself doubting the existence of afterlife | | | 1 2 3 4 |
| 4. | I think that Islam does not fit the modern time | | | 1 2 3 4 |
| 5. | I doubt that the Holy Qura'n is the exact words of Allah | | | 1 2 3 4 |
| 6. | I feel that Islam makes people intolerant | | | 1 2 3 4 |
-

IDS

Please circle the answer that best indicates your reaction to each the following statements.

1. How often do you pray?

(0) Never

(1) A few times a year

(2) Several times a month

- (3) Several times a week
- (4) Most of the times the 5 daily prayers
- (5) Five times a day or more

2. How often do you fast?

- (0) Never
- (1) Few times in life
- (2) Few days of the month of Ramadan each year
- (3) Half to all the month of Ramadan each year
- (4) The whole month of Ramadan each year
- (5) Other religious days or sunnah fasts in addition to Ramadan

3. How often do you go to the masjid?

- (0) Never
- (1) A few times in my life
- (2) A few times a year
- (3) A few times a month
- (4) About once or twice a week
- (5) Once a day or more

4. Except in prayers, how often do you read or listen to the Holy Qura'n?

- (0) Never
- (1) A few times in my life
- (2) A few times a year
- (3) A few times a month
- (4) About once or twice a week
- (5) Once a day or more

5. Except in prayers, how often do you engage in d'iker or tasbih?

- (0) Never
- (1) A few times in my life
- (2) A few times a year
- (3) A few times a month
- (4) About once or twice a week

(5) Once a day or more

IOS

Please circle the answer that best indicates your reaction to each the following statements.

Not Applicable (0) Not at all true (1) Usually not true (2) Usually true (3) Very true (4)

1.	I fast in Ramadan because I would feel bad if I did not	0	1	2	3	4
2.	I pray because if I do not, Allah will disapprove of me	0	1	2	3	4
3.	I read the Holy Qura'n because I would feel guilty if I did not	0	1	2	3	4
4.	I go to the masjid because one is supposed to go to the masjid	0	1	2	3	4
5.	I go to the masjid because others would disapprove of me if I did not	0	1	2	3	4

IES

Please circle the answer that best indicates your reaction to each the following statements.

1. Islam is Allah's complete, unfailing guide to happiness and salvation, which must be totally followed.

Very strongly disagree (-4) Strongly disagree (-3) Moderately disagree (-2)

Slightly disagree (-1) Slightly agree (1) Moderately agree (2)

Strongly agree (3) Very strongly agree (4)

2. Of all the people on this earth, Muslims have a special relationship with Allah because they believe the most in His revealed truths and try the hardest to follow His laws.

Very strongly disagree (-4) Strongly disagree (-3) Moderately disagree (-2)

Slightly disagree (-1) Slightly agree (1) Moderately agree (2)

Strongly agree (3) Very strongly agree (4)

3. It is more important to be a good person than to believe in Allah and the right religion.
(RS)

Very strongly disagree (4) Strongly disagree (3) Moderately disagree (2)

Slightly disagree (1) Slightly agree (-1) Moderately agree (-2)

Strongly agree (-3) Very strongly agree (-4)

4. Islam is the best way to worship Allah, and should never be compromised.

Very strongly disagree (-4) Strongly disagree (-3) Moderately disagree (-2)

Slightly disagree (-1) Slightly agree (1) Moderately agree (2)

Strongly agree (3) Very strongly agree (4)

GR

Please circle the answer that best indicates your reaction to each the following statements.

	Very low (1)	Low (2)	Average (3)	High (4)	Very high (5)
1. <i>How do you describe your religiousness?</i>	1	2	3	4	5
2. <i>How do you describe your spirituality?</i>	1	2	3	4	5

Appendix C: East Asian Acculturation Measure

Part 2. This part of the questionnaire will ask you about your attitudes towards American culture. Please indicate on the 7-point Likert-scale, ranging from 1 to 7, to the degree you disagree or agree with each statement.

If you are Pakistani, your native culture refers to the Pakistani culture and your native language refers to Urdu. If you are Arab American, your native culture refers to the Arab culture and your native language refers to Arabic.

The rating scale is as follows:

1-strongly disagree, 2-disagree, 3-disagree somewhat, 4-neutral, 5-somewhat agree, 6-agree, 7-strongly agree

1.	I write better in English than in my native language (for example, Arabic or Urdu)	1	2	3	4	5	6	7
2.	Most of the music I listen to is of my native culture (Arabic or Pakistani)	1	2	3	4	5	6	7
3.	I tell jokes both in English and in my native language (for example, Arabic or Urdu)	1	2	3	4	5	6	7
4.	Generally, I find it difficult to socialize with anybody, of my native culture or American	1	2	3	4	5	6	7
5.	When I am in my apartment/house, I typically speak English	1	2	3	4	5	6	7
6.	My closest friends are of my native culture (Arab American or Pakistani)	1	2	3	4	5	6	7
7.	I think as well in English as I do in my native language (for example, Arabic or Urdu)	1	2	3	4	5	6	7
8.	I sometimes feel that neither Americans nor individuals of my native culture like me	1	2	3	4	5	6	7
9.	If I were asked to write poetry, I would prefer to write it in English	1	2	3	4	5	6	7
10.	I prefer going to social gatherings where most of the people are of my native culture	1	2	3	4	5	6	7

- | | |
|------------------------------------------------------------------------------------------------------------|---------------|
| 11. I have friends of both American and of my native culture. | 1 2 3 4 5 6 7 |
| 12. There are times when I think no one understands me | 1 2 3 4 5 6 7 |
| 13. I get along better with Americans than with individuals of my native culture. | 1 2 3 4 5 6 7 |
| 14. I feel that individuals of my native culture treat me as an equal more so than Americans do | 1 2 3 4 5 6 7 |
| 15. I feel that both individuals of my native culture and Americans value me | 1 2 3 4 5 6 7 |
| 16. I sometimes find it hard to communicate with people | 1 2 3 4 5 6 7 |
| 17. I feel that Americans understand me better than individuals of my native culture do | 1 2 3 4 5 6 7 |
| 18. I would prefer to go out on a date with an individual of my native culture than with an American | 1 2 3 4 5 6 7 |
| 19. I feel very comfortable around both Americans and individuals of my native culture | 1 2 3 4 5 6 7 |
| 20. I sometimes find it hard to make friends | 1 2 3 4 5 6 7 |
| 21. I find it easier to communicate my feelings to Americans than to individuals of my native culture | 1 2 3 4 5 6 7 |
| 22. I feel more relaxed when I am with an individual of my native culture than when I am with an American | 1 2 3 4 5 6 7 |
| 23. Sometimes I feel that individuals of my native culture and Americans do not accept me | 1 2 3 4 5 6 7 |
| 24. I feel more comfortable socializing with Americans than I do with individuals of my native culture | 1 2 3 4 5 6 7 |
| 25. Individuals of my native culture should not date non-natives | 1 2 3 4 5 6 7 |
| 26. Sometimes I find it hard to trust both Americans and individuals of my native culture | 1 2 3 4 5 6 7 |
| 27. Most of my friends at work/school are American | 1 2 3 4 5 6 7 |
| 28. I find that both individuals of my native culture and Americans often have difficulty understanding me | 1 2 3 4 5 6 7 |

29. I find that I do not feel comfortable when I am with other people 1 2 3 4 5 6 7
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Appendix D: Depression, Anxiety, Stress Scale

Part 3. This part of the questionnaire we will ask you questions regarding your internal experiences. Please read the directions and indicate a response to the best of your ability.

Please read each statement and circle a number 0, 1, 2 or 3 which indicates how much the statement applied to you *over the past week*. There are no right or wrong answers. Do not spend too much time on any statement.

The rating scale is as follows:

0 Did not apply to me at all

1 Applied to me to some degree, or some of the time

2 Applied to me to a considerable degree, or a good part of time

3 Applied to me very much, or most of the time

1. I found myself getting upset by quite trivial things	0	1	2	3
2. I was aware of dryness of my mouth	0	1	2	3
3. I couldn't seem to experience any positive feeling at all	0	1	2	3
4. I experienced breathing difficulty (e.g. excessively rapid breathing, breathlessness in the absence of physical exertion)	0	1	2	3
5. I just couldn't seem to get going	0	1	2	3
6. I tended to over-react to situations	0	1	2	3
7. I had a feeling of shakiness (e.g. legs going to give way)	0	1	2	3
8. I found it difficult to relax	0	1	2	3
9. I found myself in situations that made me so anxious I was most relieved when they ended	0	1	2	3
10. I felt that I had nothing to look forward to	0	1	2	3
11. I found myself getting upset rather easily	0	1	2	3
12. I felt that I was using a lot of nervous energy	0	1	2	3
13. I felt sad and depressed	0	1	2	3

14.	I found myself getting impatient when I was delayed in any way (e.g. lifts, traffic lights, being kept waiting)	0	1	2	3
15.	I had a feeling of faintness	0	1	2	3
16.	I felt that I had lost interest in just about everything	0	1	2	3
17.	I felt I wasn't worth much as a person	0	1	2	3
18.	I felt that I was rather touchy	0	1	2	3
19.	I perspired noticeably (e.g. hands sweaty) in the absence of high temperatures or physical exertion	0	1	2	3
20.	I felt scared without any good reason	0	1	2	3
21.	I felt that life wasn't worthwhile	0	1	2	3
22.	I found it hard to wind down	0	1	2	3
23.	I had difficulty in swallowing	0	1	2	3
24.	I couldn't seem to get any enjoyment out of the things I did	0	1	2	3
25.	I was aware of the action of my heart in the absence of physical exertion (e.g. sense of heart rate increase, heart missing a beat)	0	1	2	3
26.	I felt down-hearted and blue	0	1	2	3
27.	I found that I was very irritable	0	1	2	3
28.	I felt I was close to panic	0	1	2	3
29.	I found it hard to calm down after something upset me	0	1	2	3
30.	I feared that I would be "thrown" by some trivial but unfamiliar task	0	1	2	3
31.	I was unable to become enthusiastic about anything	0	1	2	3
32.	I found it difficult to tolerate interruptions to what I was doing	0	1	2	3
33.	I was in a state of nervous tension	0	1	2	3
34.	I felt I was pretty worthless	0	1	2	3
35.	I was intolerant of anything that kept me from getting on with what I was doing	0	1	2	3
36.	I felt terrified	0	1	2	3
37.	I could see nothing in the future to be hopeful about	0	1	2	3

38. I felt that life was meaningless	0	1	2	3
39. I found myself getting agitated	0	1	2	3
40. I was worried about situations in which I might panic and make a fool of myself	0	1	2	3
41. I experienced trembling (e.g. in the hands)	0	1	2	3
42. I found it difficult to work up the initiative to do things	0	1	2	3
